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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,130	07/24/2001	Boris Felts	PHFR 000076	4032

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EXAMINER

AN, SHAWN S

ART UNIT PAPER NUMBER

2621

DATE MAILED: 08/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/912,130	FELTS ET AL.	
	Examiner	Art Unit	
	Shawn S. An	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☒ Claim(s) 2 and 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment/Request for Reconsideration

1. Applicant's Amendment/Request for Reconsideration as filed on 5/22/06 have been fully considered but they are not persuasive.

The Applicant presents an argument of which the cited prior art references do not disclose, teach, or suggest "... for the estimation of probabilities of occurrence of the symbols 0 and 1 in the lists at each level of significance, four models represented by four context trees, are considered, theses models corresponding to the LIS, LIP, LSP and sign ..,".

The Applicant further asserts that the Office action fails to demonstrate a proper motivation to combine Pearlman and Li, and the Examiner has engaged in impermissible hindsight reconstruction.

However, after careful scrutiny of the cited prior art references and the last Office action, the Examiner must respectfully disagree, and maintain the grounds of rejection for the reasons that follow.

Upon further review, Pearlman et al discloses for the **determination** of probabilities of occurrence of the symbols 0 and 1 in the lists at each level of significance, four models represented by four context trees, are considered, theses models corresponding to the LIS, LIP, LSP and sign (Figs. 2A and 4).

In other words, Pearlman et al discloses substantially all of the claimed (claim 1) features with the only exception of **estimation** of Pearlman et al discloses for the **determination** of probabilities of occurrence of the symbols 0 and 1 in the lists at each level of significance, four models represented by four context trees, are considered, theses models corresponding to the LIS, LIP, LSP and sign, whereas the Applicant's claim recites for the **estimation** of probabilities of occurrence of the symbols 0 and 1 in the lists at each level of significance, four models represented by four context trees, are considered, theses models corresponding to the LIS, LIP, LSP

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and sign. Therefore, the only difference is that Pearlman et al determines ...,whereas the Applicant estimates

Further, Li et al teaches an embedded image encoder comprising estimating the probabilities of occurrence of the symbols 0 and 1 in each level of significance for optimizing rate-distortion performance (col. 6, lines 59-67; col. 7, lines 1-24; col. 2, lines 25-38).

Furthermore, in contrast to Applicant's assertion that the Office action does not support the motivation statement with a suggestion or motivation derived from prior art, Li et al clearly teaches that a rate-distortion optimized embedding coder optimizes rate-distortion performance by coding coefficients in order of their R-D slope (col. 2, lines 25-38).

Therefore, it would have been considered obvious to a person of ordinary skill in the art employing an encoding method as taught by Pearlman et al to incorporate Li et al's teaching as above so as to estimate the probabilities of occurrence of the symbols 0 and 1 in the Pearlman's lists at each level of significance, four models represented by four context trees, being considered, theses models corresponding to the LIS, LIP, LSP and sign for optimizing rate-distortion performance.

Moreover, in response to applicant's argument that the Examiner's conclusion of obviousness is based upon improper hindsight reasoning (reconstruction), it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pearlman et al (6,671,413 B1) in view of Li et al (6,625,321 B1) as previously discussed in the last Office action as file on 3/7/06.

Allowable Subject Matter

4. Claims 2-3 are objected to as being dependent upon a rejected base claim 1, but would be allowable: if claim 2 is rewritten in independent form including all of the limitations of the base claim 1 and any intervening claims.

Dependent claim 2 recites novel features including the encoding of each bit, a context formed of d bits preceding the current bit and different according to the model considered for the current bit being used, wherein the context being distinguished for the luminance coefficients, the chrominance ones – while differentiating the U and V planes, and for every frame in the spatio-temporal decomposition, wherein these contexts being gathered in a structure depending on the type of symbols, coming from the LIS, LIP, LSP or from the sign bitmap, on the color plane Y, U, or V, and on the frame in the temporal subband.

The prior art of record fails to anticipate or make obvious the novel features.

Accordingly, if the amendments are made to the claims listed above, and if rejected claim is canceled, the application would be placed in condition for allowance.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to *Shawn S. An* whose telephone number is 571-272-7324.
6. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


SHAWN AN
PRIMARY EXAMINER

7/30/06